
1.1 The Transportation Master Plan

The Transportation Master Plan (TMP) is one of a number of City of Boulder master plans. Plans for the City occur in a hierarchy of policy direction and decision making, with the Boulder Valley Comprehensive Plan (BVCP) providing the overall direction and establishing community wide goals and policies. Within the framework of the BVCP, master plans provide direction for the provision of services and facilities on a City-wide basis and within a particular functional area, such as transportation. Finally, area subcommunity plans provide detailed descriptions for the future of portions of the City reflecting their unique characteristics and desires.

The BVCP provides the overall policy framework for future development in the Boulder Valley. The City's various master plans provide planning for the delivery and funding of specific services, facilities and programs, and identify the costs associated with current deficiencies and replacement needs, and those associated with growth. The facility and service priorities and the funding plans established through the master planning process provide the basis for capital improvement programming.

Following completion of the Transportation Master Plan Update, the BVCP will need to be amended to reflect the changes that are part of the TMP Update. A master plan summary, revised policies and updated maps from the TMP Update will be included in the BVCP as part of its annual review in the fall of 1996.

Revisions to the BVCP go through the "Four Body" review defined by an intergovernmental agreement between the City of Boulder and Boulder County. This "Four Body" review requires adoption of the plan summary and the revisions to the BVCP by the planning boards of each entity, the City Council and the Board of County Commissioners.

Boulder's first Transportation Master Plan was developed in 1989. The document you are now reading is the final draft of the first five-year update of that Plan.

1.2 The Amendment Process

The intention for the TMP Update is for it to be a "living" document, subject to periodic amendment and update. While the City is committed to a major review of the TMP on a 5-year basis, experience with the first TMP indicates that there is a need for more periodic adjustments and modifications of the plan.

This is particularly important as this Update calls for a number of programs and strategies that are "cutting-edge" and untried, but that offer significant promise in helping to achieve our transportation goals. The experience of experimenting and implementing new programs will likely suggest needed modifications to the implementation aspects of the TMP Update prior to the 5-year review. In particular the TMP Update will need to incorporate the results of the ongoing Congestion Relief Study and the Excise Tax study.

The purpose of the TMP Update amendment process is to provide an annual opportunity for substantive changes to the TMP Update. This process should be completed by the fall of each year, so that any changes that need to be reflected in the BVCP can be included in its annual review process.

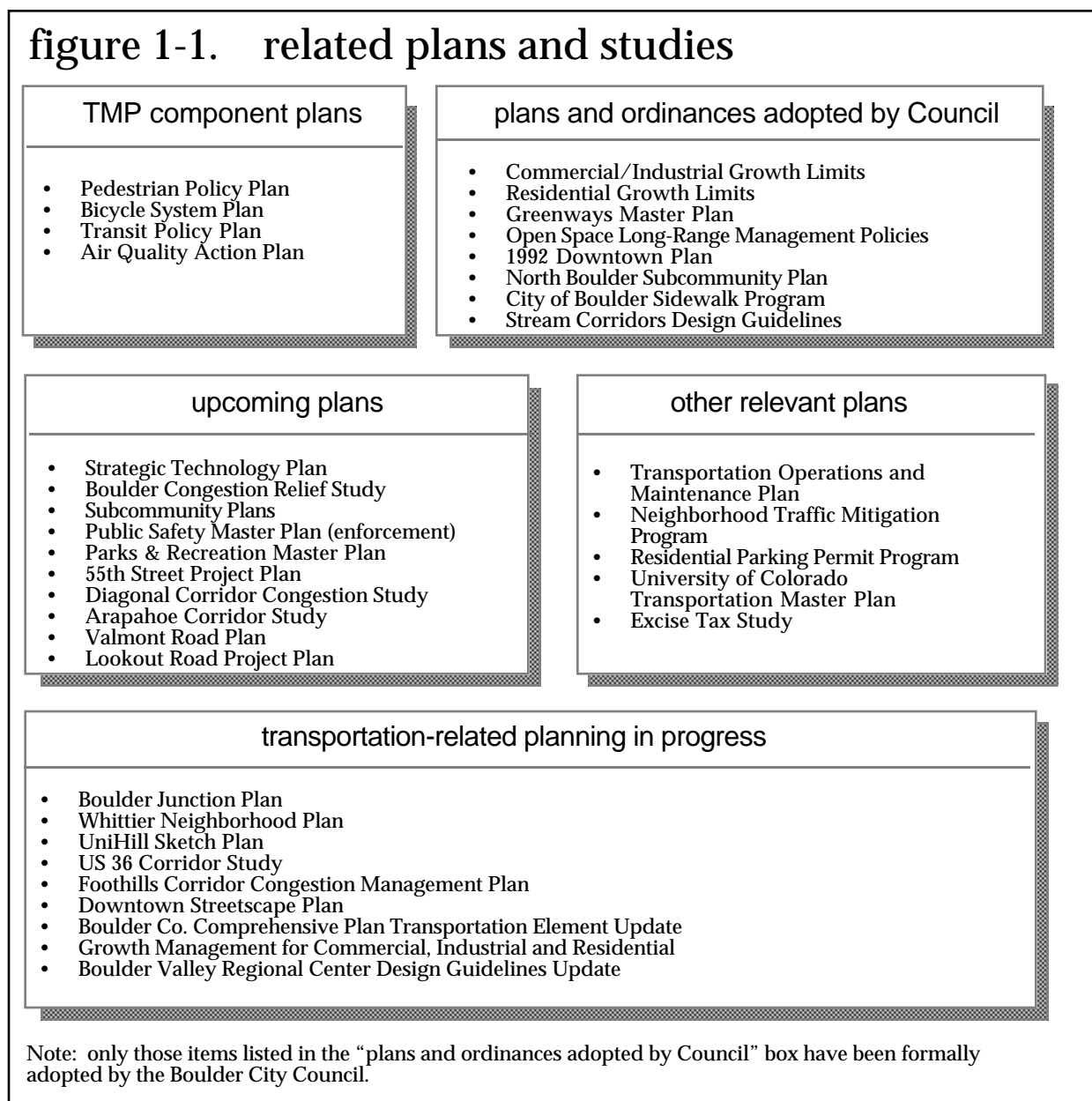
Such changes can be initiated following recommendations by either City staff, members of the Transportation Advisory Board (TAB), or members of the Planning Board. Minor changes can be accepted by a majority of the TAB, and a report provided to the City Council who have the option of calling up the change for their consideration. More substantial changes will receive a recommendation from TAB and must be adopted by the City Council following noticed public hearings before each body.

Determination of the significance of a proposed change will be made by City staff in consultation with the Chair of the TAB.

This amendment process is in addition to the annual budget process, which will continue to define the yearly investment and work program for transportation.

It should be noted that some amendments to the TMP Update would also require amendment of the BVCP through the “Four Body” review process. On an annual basis, changes to the road designation map and to functional maps may be considered through the “Four Body” review process. Major policy changes are normally considered only during the 5-year updates of master plans.

figure 1-1. related plans and studies



1.3 Plan Basis

The planning horizon for this Update is the year 2020, 25 years from now. However, the Plan places primary program emphasis on the five years between now and 2000 - when the next Update is scheduled.

This TMP provides an opportunity to tie together a number of city plans and studies which have been developed recently or are in progress as well as plans which have been developed by other entities and governments within the city and county.

These other plans and studies include:

- those plans which are components of the TMP Update;
- those plans which have been adopted independently of the TMP but which are referenced here;
- those plans or planning efforts which are still in progress; and,
- those plans which will be developed in the next five years.

These are listed in figure 1-1 on the previous page in their respective categories.

All of these plans affect the transportation system either directly or indirectly. The TMP incorporates appropriate aspects of those plans already written. It also provides a transportation policy base for development of upcoming plans and programs. Of particular importance in achieving the City's transportation goals and objectives are the Boulder Congestion Relief Study and the Excise Tax Study, both of which are in progress.

1.4 Partnerships

The City of Boulder is not an isolated community, but relates closely with other public and private entities. The City faces

many of the same issues as her neighboring communities and successful solutions to these issues requires involving these communities in design and implementation. A central theme of this TMP Update is relying on partnerships with others to strengthen and ensure the success of Boulder's transportation strategies and programs. A partial list of entities and governing bodies which the City will work with to develop stronger partnerships include:

- University of Colorado (CU);
- Boulder Valley School District (BVSD);
- Boulder Urban Renewal Authority (BURA);
- Regional Transportation District (RTD);
- Downtown Management Commission (DMC);
- University Hill General Improvement District (UHGID);
- neighboring communities; and,
- local businesses.

1.5 Assumptions and Risks

Through the TMP Update, the City has evaluated a range of possible futures. The future desired by Boulder's citizens is one in which our quality of life remains at least at today's levels. The TMP Update captures this desire through use of the concept of "no increase in daily vehicular traffic."

Chapters 2 through 6 describe the challenge involved in meeting a "no traffic increase" future. Basically what is required is a shift away from auto dependence in general and single-occupant vehicle (SOV) travel in particular.

Since 1989, the City has succeeded in reducing SOV usage by encouraging tripmaking by other modes. However, the effort required in the future will be greater if Boulder is to avoid continued vehicular traffic growth. Figure 1-2 (which is presented and explained in more detail in Section 6.4) indicates the magnitude of this increased effort.

The purpose of this section is to provide an assessment of the assumptions and risks associated with this increased effort.

Two of Boulder's potential futures are summarized in figure 1-3 on the next page.

The right half of figure 1-3 describes the future upon which this plan is based. The left half shows a future that could result from continuation of current trends. Achieving the future described on the right will require careful management of land use and also a shift in daily travel patterns.

The idea of a shift in travel behavior was introduced in the 1989 TMP and expressed in terms of a "15% shift in daily trips away from single-occupant vehicles (SOV)." The TMP set a target of shifting 15% of SOV trips (the largest category of travel) to other modes.

This TMP Update continues to utilize the concept of a shift away from SOV tripmaking.

figure1-2. reevaluation of effort required

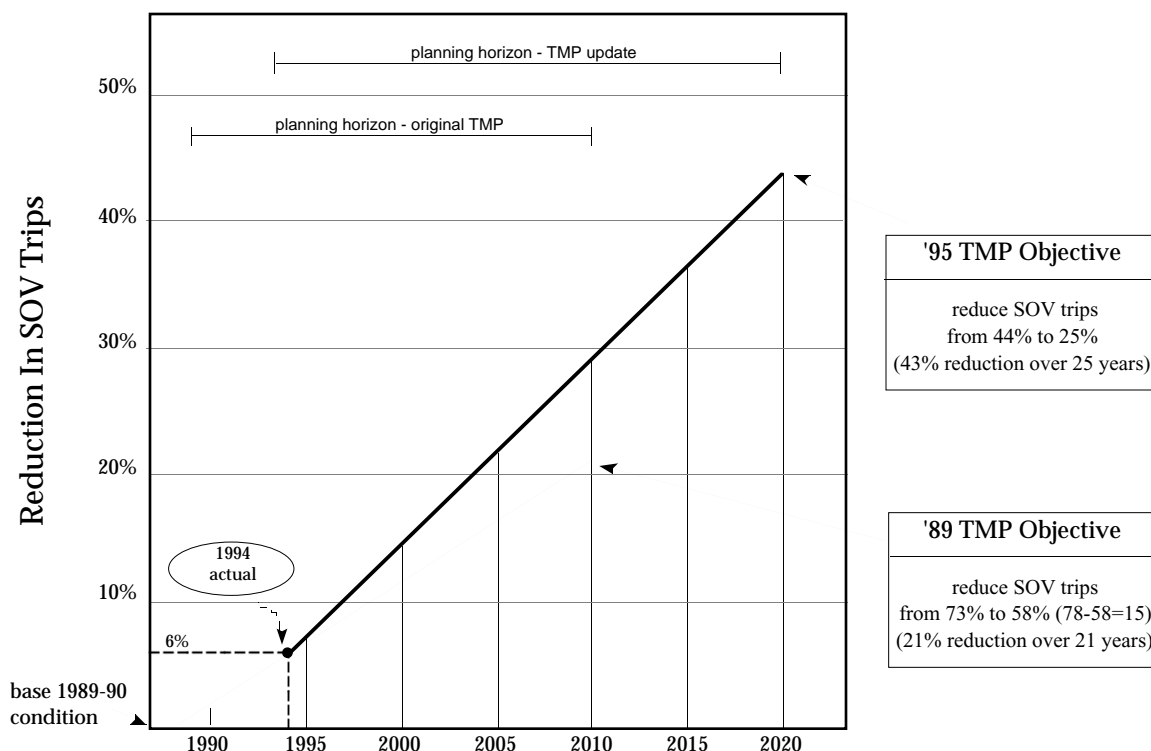


figure 1-3. traffic and congestion in 2020

... if trends continue

Traffic

Traffic on most major roadways would increase by 50 to 100%. Spillover and cut-through traffic on neighborhood streets would be much higher.

Congestion

About 60% of Boulder arterial and collector streets would be congested (operating at level of service F). A trip from Violet to Greenbriar on Broadway would require 33 minutes during peak travel periods, up from 18 minutes today.

External Vehicles

The number of motor vehicles entering Boulder from East Boulder County and Denver each day would double.

Daily Vehicle Miles

Daily VMT within Boulder Valley would increase by nearly 80%.

Infrastructure Needs

Congestion and traffic problems associated with this scenario could not be resolved through additional construction. Roadway needs alone would be at least \$200 million higher than in the "plan" scenario.

Other

Even with increased supply, downtown parking would be a serious problem. Parking supply in Boulder Valley Regional Center would have to be greatly increased.

Heavy traffic would discourage walking and bicycling and reduce transit performance.

... this plan

Traffic

Traffic on most major roadways would average about the same as in 1994. Traffic on some routes into Boulder would increase 10 to 20%.

Congestion

Less than 20% of Boulder arterial and collector streets would be congested (operating at level of service F). A trip from Violet to Greenbriar on Broadway would require 18 minutes during peak travel periods, about the same as today.

External Vehicles

The number of motor vehicles entering Boulder from East Boulder County and Denver each day would increase by 20%. Local vehicle trips would actually decrease.

Daily Vehicle Miles

Daily VMT within Boulder Valley would be at today's levels.

Infrastructure Needs

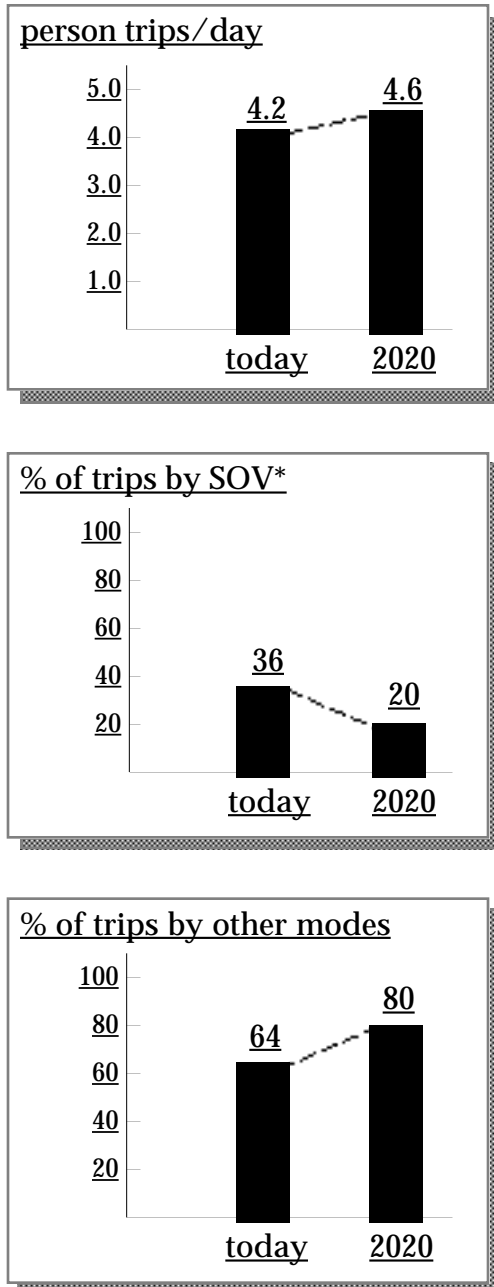
Infrastructure needs associated with this plan exceed forecast revenues. Primary unfunded needs would include maintenance of deteriorating roadways and expansion of bike and pedestrian facilities and transit services.

Other

The demand for parking in downtown would be about the same as today. Parking demand in BVRC would increase but could be accommodated with existing supply.

The amount of daily walking, bicycling and transit ridership would be 240% of 1994 levels.

figure 1-4. travel patterns required
(residents of Boulder)



* note: the 25% objective described elsewhere in this Plan is a combination of resident and non-resident travel.

However, the desire for no growth in traffic combined with robust regional growth has the effect of increasing the amount of shift needed.

Figure 1-4 shows the required change in travel patterns of Boulder residents. (The land use and travel behavior basis for this Plan are described in detail in Chapters 3, 4 and 5.)

Figure 1-5 on the next page shows the changes required on the part of residents of neighboring communities traveling in and out of Boulder.

The purpose of these graphs is to clearly show the extent of the challenge associated with Boulder's desired future. Implementing the Plan described in this Update requires significant changes in the way we get around.

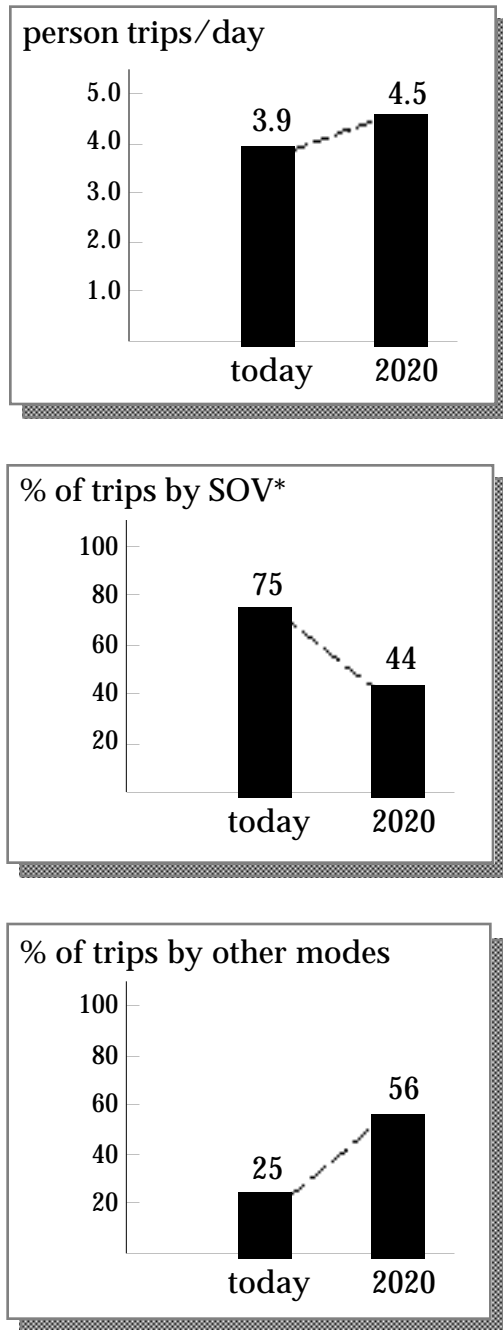
There is no need for Boulder's residents to travel less - or to restrict their tripmaking. In fact the Plan assumes we will make even more daily trips in the future than we do today. The TMP Update does not require reduced personal travel.

However, the Plan does require that we make fewer of these daily trips alone in our cars. Eventually (by 2020) we should only make about one in five trips by SOV, down from just over two in five today.

The rest of our daily travel should utilize one of the other modes - walking, bicycling or transit - or should involve sharing rides with other auto drivers or passengers or should use telecommunications as an opportunity to reduce the need for travel.

As figure 1-5 indicates, even more significant shifts in travel behavior will be required of those who travel in and out of Boulder from neighboring communities. These travelers will continue to be more auto-dependent than Boulder residents, but the amount of change required will be greater. This results from the fact that external traffic (trips that begin or end outside Boulder) will increase at a much higher rate than internal trips.

figure 1-5. travel patterns required
(residents of neighboring communities)



* note: the 25% objective described elsewhere in this Plan is a combination of resident and non-resident travel.

This need for changes in external travel behavior heightens the importance of regional cooperation.

Success at achieving this kind of change in travel behavior is by no means assured. The 1989 TMP addressed this problem by proposing that the City would begin by emphasizing “incentive-based” measures (e.g., the Eco Pass) to encourage changes in travel patterns.

However, the 1989 TMP went on to indicate that if the incentive-based programs failed to achieve the required shift, other measures would be employed to discourage drive-alone behavior.

The City has a tool kit of programs and measures available for accomplishing this change in behavior. They are shown graphically in figure 1-6 on the next page and described throughout this Plan.

The City has relied primarily on the top three “drawers” in this kit: investment in alternative modes, incentives and marketing, and regulatory demand management.

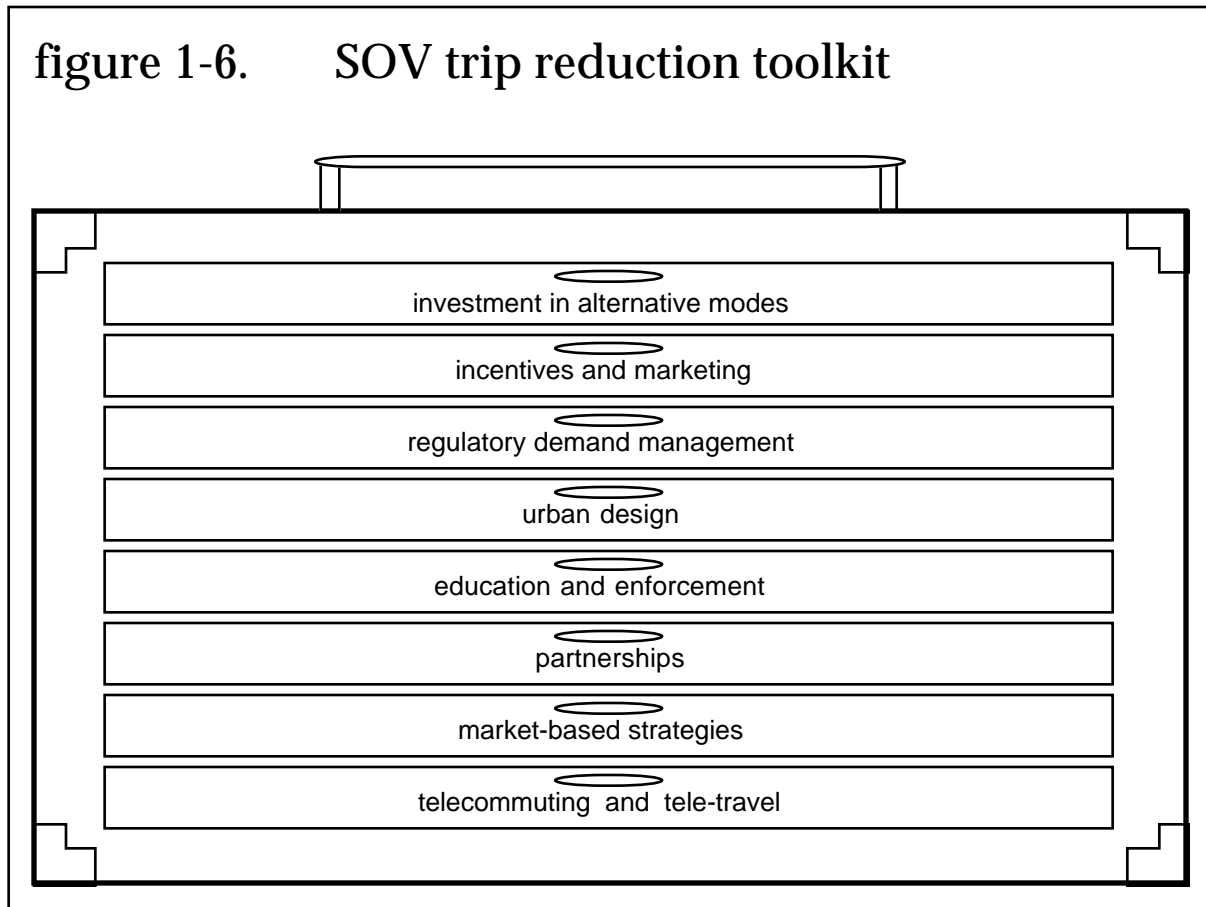
One of the major conclusions of this TMP Update is the finding that these measures alone will not be enough to secure a zero-traffic-growth future for Boulder.

Consequently, the City will begin examining the potential role of regulatory demand management, urban design, partnerships and market-based strategies.

The risks associated with adoption of this TMP Update fall into three categories:

- (1) **LAND USE.** This includes risks associated with land use development patterns internal to the City and external - in Boulder County. The City is experienced at land use and growth management so the internal risk may be slight. However, the risk of continued rapid suburbanization of the Boulder region is great and this could

figure 1-6. SOV trip reduction toolkit



have a significant impact on Boulder's chances of success with this Plan.

are potential lack of public support and ineffectiveness of the strategies attempted.

(2) **FINANCIAL INVESTMENT.** Most of the transportation needs described in Chapters 7 and 8 cannot be funded from revenues now available to the City. Without additional resources, the strategy of encouraging reduced SOV reliance by making non-auto modes more attractive cannot really be supported.

As was noted earlier, the objective of “no long-term growth in traffic” is significantly more challenging than the 15 percent mode shift objective of the 1989 TMP, and success in achieving this change in travel behavior is by no means assured.

(3) **DEMAND MANAGEMENT.** This includes risks associated with incentives and disincentives. Boulder has had solid success with incentives (e.g., Eco Pass) so this risk is low. However, the City has not attempted disincentives (either regulatory or pricing) to discourage SOV travel. Here the risk of not succeeding is higher. Sources of this risk

However, despite the risks of pursuing this strategy, the City is convinced that this aggressive goal offers the only hope of maintaining the current quality of life that is the expressed desire of the citizens of Boulder. Moving toward this goal will require experimentation which will likely result in both successes and failures, and many of the strategies and costs of achieving this objective have yet to be defined.

Consequently it is important to monitor the results of these efforts, to evaluate the current strategies, and to assess the continued appropriateness of this objective.

The next five-year Update of the TMP offers a comprehensive opportunity for this assessment, while the annual amendment process provides a periodic opportunity for evaluation. As part of the 1989 TMP, the City committed to collecting improved travel data in Boulder, resulting in the annual travel diary surveys.

This Update commits the City to developing a cost-effectiveness evaluation process aimed at VMT reduction. The results of these efforts as well as other indicators should be assembled into an annual report of progress toward the City's transportation goals, that would be presented as part of the annual amendment process.

Thus, there will be periodic opportunities to monitor the progress towards achieving the goals and objectives of the TMP. If through our monitoring efforts we find we are not achieving our goals and objectives, the City policy makers can assess whether we should either re-think our strategies, or re-think our goals and objectives.

